



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/520,733

01/10/2005

Ernst Reder

fmw-cq-pct-us

9733

28862 7590 10/30/2009
HUDAK, SHUNK & FARINE, CO., L.P.A.
2020 FRONT STREET
SUITE 307
CUYAHOGA FALLS, OH 44221

EXAMINER

KURTZ, BENJAMIN M

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

10/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/520,733	Applicant(s) REDER ET AL.	
	Examiner BENJAMIN KURTZ	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 15-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 20, 23 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-10, 15-19, 21, 25 and 29 is/are rejected.
- 7) ☒ Claim(s) 22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-10 and 15-26 are pending, claims 11-14 are cancelled.

Claim Rejections - 35 USC § 102 and 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-8, 16-18 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy et al. US 5 830 348 in view of Verlinden US 3 958 904.**

Claim 1, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, and the lid having a curved edge section that merges into an essentially horizontal lid bottom middle section (fig. 1, col. 4, lines 8-17). Vannoy does not teach the lid bottom merges

with the lateral wall in the direction of the peripheral wall along an inward curved section, tapering inwards, in a forming region or that glue or a weld connects at least one section of the common wall section to the peripheral wall.

Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, wherein the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto where glue connects at least one section of the common wall section to the peripheral wall (fig. 1, col. 5, lines 21-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lid structure as taught by Verlinden with the lid of Vannoy because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (col. 1, lines 50-65).

Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore, because the particular technique was recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

Claims 2-8 and 16-18, Verlinden further teaches in vertical cross section the lateral wall is a linear tangent line, and wherein the lateral wall is connected with the curved edge section tangentially (fig. 1); the common wall section forms a lower wall section of the lateral wall that includes the lower end (fig. 1); the curved edge section extend up to the inner end of the strip shaped lateral wall (fig. 1); the curved edge section has a mean edge of curvature R , which satisfies R greater than $5 \times S$, S being the thickness of the peripheral wall of the cartridge container (fig. 1); the curved edge section spans an angle of 90 degrees (fig. 1); the lateral wall upper wall section extends upward from the common wall section at least up to a height of the lid bottom (fig. 1); the upper wall section of the lateral wall and the curved edge section border on their outer side forming a ring space with a wedge shaped cross section (fig. 1);

Claim 25, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in

Art Unit: 1797

contact with the peripheral wall along the entire length of the lateral wall, and the lid having a curved edge section that merges into an essentially horizontal lid bottom middle section (fig. 1, col. 4, lines 8-17). Vannoy does not teach the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved section, tapering inwards, in a forming region or that glue or a weld connects at least one section of the common wall section to the peripheral wall.

Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, wherein the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto where glue connects at least one section of the common wall section to the peripheral wall (fig. 1, col. 5, lines 21-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lid structure as taught by Verlinden with the lid of Vannoy because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (col. 1, lines 50-65). Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore, because the particular technique was recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (2007).

Claim 26, Vannoy teaches a filter cartridge with a filter material, comprising: a cartridge container (14) with a bottom wall (26) and a peripheral wall and a lid (38), which durably shuts the cartridge container, comprised of a lid bottom and a strip shaped lateral wall having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall and the lid having a curved edge section that merges into an essentially horizontal lid bottom middle section (fig. 1, col. 4, lines 8-17). Vannoy does not teach the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved section, tapering inwards, in a forming region.

Verlinden teaches a container (2) with a bottom wall (6) and a lid (3), which durably shuts the container, comprised of a lid bottom (13a) and a strip shaped lateral

wall (13) having a length measured parallel to the peripheral wall and having a linear vertical cross section along the entire length of the lateral wall, wherein the lateral wall is fitted at the inner side of the peripheral wall and the lateral wall is in contact with the peripheral wall along the entire length of the lateral wall, wherein the lid bottom merges with the lateral wall in the direction of the peripheral wall along an inward curved edge section, wherein the curved edge section and the lateral wall join in a common wall section, tapering inwards, in a forming region, wherein a lower end of the common wall section is parallel to the cartridge container peripheral wall adjacent thereto, and wherein the lateral wall has an upper wall section which is connected to and extends upward from the common wall section that is parallel to the common wall section lower end and cartridge container peripheral wall adjacent thereto and the curved edge section has a mean edge of curvature R , which satisfies R greater than $5 \times S$, S being the thickness of the peripheral wall of the cartridge container where glue connects at least one section of the common wall section to the peripheral wall (fig. 1, col. 5, lines 21-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the lid structure as taught by Verlinden with the lid of Vannoy because the lid structure of Verlinden ensures an effective seal between the lid and container having a strong interconnection and an easy manufacture (col. 1, lines 50-65). Also, Verlinden demonstrates that this particular structure for a lid is known in the art, particularly when dealing with the problems of the present invention, mainly a pressurized container with a lid. Therefore, because the particular technique was

recognized as part of the ordinary capabilities of one skilled in the art the claim would have been obvious, KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385 (2007).

Claims 27-29, Vannoy does not teach the curved edge section has an essentially vertical section at one end in an area of the common wall section. Verlinden teaches the curved edge section has an essentially vertical section at one end in an area of the common wall section and would have been obvious for the same reasons detailed in the rejection of claims 1, 25 and 26.

2. Claims 9, 10, 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy '348 and Verlinden '904 and further in view of Stifano US 4 109 820.

Claims 9 and 19, Vannoy and Verlinden teach the filter cartridge of claim 1 or 8 but do not teach a back up ring arranged on the lid.

Stifano teaches a cartridge having a lid further comprising a back up ring arranged on the lid (col. 3, lines 32-34), the back up ring has an inner wall comprising a ring opening (25) an outer lateral wall in contact with the lid lateral wall and a plurality of radial reinforcing ribs (14) extending between the back up ring inner wall and the back up ring outer lateral wall (fig. 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the back up ring of Stifano because the ring redirects the pressure within the container to the walls and makes a stronger seal (col. 3, lines 46-56).

Claim 10, Stifano further teaches at least a bottom contour of the back up ring is connected to the back up ring inner wall and the back up ring outer lateral wall and is built such that the bottom contour is complementary to an outer contour of the lid (fig. 6).

Claim 21, Vannoy further teaches the lid includes a connecting tube at its center that is connected to the essentially horizontal lid bottom middle section and Stifano also teaches the lid including a connecting tube (25) accessible through the ring opening of the back up ring (Vannoy (fig. 1), Stifano (fig. 6)).

3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vannoy '348 in view of Verlinden '904 and Gizowski et al. US 2001/0000894 A1.

Vannoy further teaches a weld where the weld is a laser weld but does not teach the material of the cartridge is transparent to laser light. Gizowski teaches the material of the cartridge container is transparent to laser light and at least the material of the lateral wall of the lid is absorptive to laser light (paragraph 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the materials as taught by Gizowski because it enables increase manufacturing rates and provides a higher quality fluid seal (paragraph 7).

Response to Arguments

4. Applicant's arguments filed 8/13/09 have been fully considered but they are not persuasive.

Applicant argues that Vannoy does not teach a common wall section that is parallel to the peripheral wall section or glue or a weld connecting at least one section of common wall section to the peripheral wall. Applicant is correct, Vannoy does not teach a common wall section and therefore there is no forming region. However, Vannoy is not relied upon to teach these features as they are taught by Verlinden as detailed in the rejection above. Applicant also argues that Vannoy does not teach the curved edge section merging into an essentially horizontal lid bottom middle section. Vannoy teaches such a feature as clearly seen in figure 1 where the element (40) extends from the middle horizontal lid bottom section. Vannoy and Verlinden both teach lids for containers experiencing internal pressure conditions. The claimed lid structure of a bottom curved section merging with a lateral wall to form a common wall section parallel to a peripheral wall is a known structure as shown by Verlinden. Applicant has not shown that the combination of elements of Vannoy and Verlinden as detailed in the rejection above would amount to more than a predictable result. All of the claimed structure is known in the art and would perform in the same manner as the claimed structure.

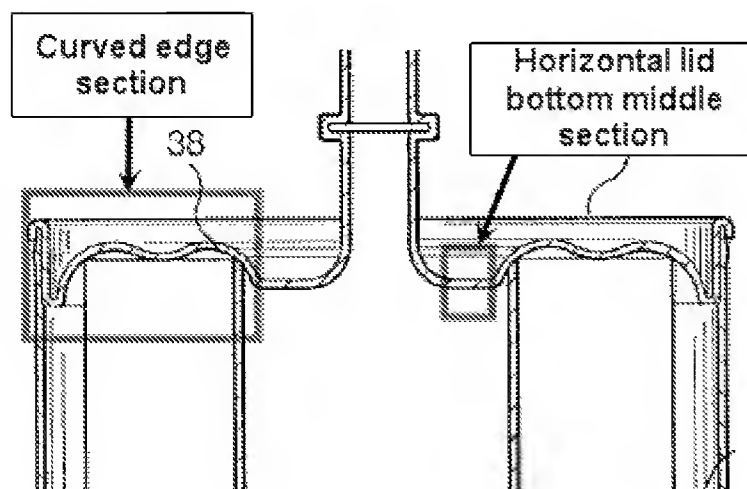
In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was

Art Unit: 1797

within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Applicant has not shown how the combination of the cited references amounts to more than a predictable result.

Applicant also argues that Stifano does not teach a back up ring. The plurality of support members (14), as taught in col. 3, lines 29-33, may be separate and distinct from the lid. The support members form an inner wall, near (25) the inner ends of the ribs, and extend radially outward forming an outer lateral wall, the outer ends of the ribs (14), that is connected to the lid lateral wall as claimed. The support members extend from the inner wall to the outer wall.

Applicant also argues that Vannoy does not teach a curved edge section merging into an essentially horizontal lid bottom middle section. Vannoy teaches this feature as shown below.



Allowable Subject Matter

5. Claim 22 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 23, 24 and 20 are allowed.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **BENJAMIN KURTZ** whose telephone number is

Art Unit: 1797

(571)272-8211. The examiner can normally be reached on Monday through Friday 8:00am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Benjamin Kurtz
Examiner
Art Unit 1797

/Krishnan S Menon/
Primary Examiner, Art Unit 1797